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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,345	10/06/2004	Kazumasa Inata	Q83520	8360

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EXAMINER	
SELLERS, ROBERT E	
ART UNIT	**PAPER NUMBER**
1712	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,345	INATA, KAZUMASA	
	Examiner	Art Unit	
	Robert Sellers	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *3,4,6, 7 and 10-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,8 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claims 3, 4 and 12-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 17, 2007. Claims 6, 7, 10 and 11 are withdrawn as being directed to the non-elected species of the presence of the inorganic ion-exchanger. Claim 11 is included in the elected invention of Group I, but is withdrawn due to its dependence upon withdrawn claim 7 requiring the inorganic ion-exchanger.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takai et al. Patent No. 6,924,008; Yamamura et al. Patent No. 5,981,616; Watanabe et al. Patent No. 6,783,840 and Suzuki et al. Patent No. 6,498,200.

1. Takai et al. (col. 15, lines 23-29, invention No. 35) discloses a composition comprising an epoxy compound such as an epoxidized polybutadiene (cols. 83-84, lines 11-13 and Table v-1, Example v-6, PB-3600), an oxetane compound such as the mono-oxetane compound shown by formula [1] (col. 87, lines 33-54) and an ionic polymerization initiator including a cationic polymerization catalyst (col. 16, lines 24-26) such as an iodinium salt (col. 26, line 38 to col. 27, line 30) which is photo-curable (col. 57, lines 33-41).

2. Yamamura et al. (col. 2, lines 57-61) reports a photo-curable composition containing an oxetane compound such as the elected species of 2-ethylhexyl(3-ethyl-3-oxetanylmethyl)ether OXT-212 (col. 6, lines 28) utilized in Table 1 on page 27 of the instant specification identified as EHOX and described on page 24, lines 4-5, an epoxy compound including the elected species of epoxidized polybutadiene R-45 EPI (col. 9, lines 14-34) employed in Table 1 as set forth on page 24, lines 1-3, and a cationic photoinitiator.

3. Watanabe et al. (col. 4, lines 16-23, item [19]) sets forth a blend of a compound having at least one oxetanyl and epoxy group, a cationic polymerization initiator such as the elected species of bis(dodecylphenyl)iodonium hexafluoroantimonate (col. 5, lines 54-55) used in Table 1 and identified on page 24, the penultimate paragraph, UV9380C), a compound having at least one epoxy group such as epoxidated polybutadiene (col. 7, line 48) and a compound having at least one oxetanyl group (col. 7, line 66 to col. 8, line 2).

4. Suzuki et al. (col. 2, lines 6-14 and 18-21) espouses a cationically polymerizable composition prepared from a mixture of a compound having at least one oxirane ring such as an oxirane ring-containing polybutadiene (col. 2, line 42) and a compound having at least one oxetane ring such as a monooxetane (col. 3, lines 61-65) and an onium salt.

5. The references disclose but do not exemplify the claimed oxetane compound confined to Formula (1) with the epoxidized polybutadiene. It would have been obvious to blend the epoxidized polybutadiene of Takai et al., Yamamura et al., Watanabe et al. and Suzuki et al. with the disclosed mono-oxetane compounds within the ambit of claimed Formula (1) based on the equivalency between the exemplified oxetane compounds and claimed mono-oxetane compounds within claimed Formula (1) disclosed therein.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to the claims hereinabove, and further in view of Jansen et al. Patent No. 6,916,855.

6. Takai et al., Yamamura et al., Watanabe et al. and Suzuki et al. do not recite the claimed antioxidant. Jansen et al. is drawn to a radiation curable composition containing cationically polymerizable organic compounds such as an epoxidated polybutadiene (col. 22, lines 33-34) or a mono-oxetane compound (col. 22, lines 35-37) and an antioxidant such as the elected species of Irganox 1010 (col. 18, lines 65-66) employed in Table 1 and described on page 25, lines 9-11.

7. It would have been obvious to incorporate the Irganox 1010 antioxidant of Jansen et al. as an additive in the compositions of Takai et al., Yamamura et al., Watanabe et al. and Suzuki et al. in order to improve the resistance of the cured product to oxidation.

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rs 4/23/2007

ROBERT E.L. SELLERS
PRIMARY EXAMINER